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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,561	03/11/2005	Ihor E. Kopka	21204P	7320
210	7590	01/04/2007		
MERCK AND CO., INC P O BOX 2000 RAHWAY, NJ 07065-0907			EXAMINER BALASUBRAMANIAN, VENKATARAMAN	
			ART UNIT	PAPER NUMBER
			1624	
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			01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<b>Application No.</b> 10/527,561	<b>Applicant(s)</b> KOPKA ET AL.	
	<b>Examiner</b> Venkataraman Balasubramanian	<b>Art Unit</b> 1624	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 September 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on 22 December 2006. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: 11, 13-16, 25 and 26.  
 Claim(s) rejected: 1, 4-9, 17 and 24.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☒ Other: See attached Advisory Action.

  
 Venkataraman Balasubramanian  
 Primary Examiner  
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### **ADVISORY ACTION**

The applicants' response, filed 9/22/2006 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance for the following reasons.

Applicants' traversal indicates that they have amended dependent claim 1 to exclude hydroxy from R<sup>1</sup> but claim 1 clearly includes R<sup>1</sup>=OH choice.

Hence, Applicants did not overcome the following prior art rejections made in the previous office action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-8 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Agarwal et al., WO 2004/009560 for reasons of record. To repeat:

Agarwal et al. teaches several substituted pyrimidine compounds useful as cyclooxygenase inhibitors for treating pain and other diseases, which include instant compound generically claimed in the instant claims. See page 9, formula I and note the definition of A, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub>. Note with a given A choice, when R<sub>5</sub> and

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R6 are either aryl or heteroaryl, compounds taught by Agarwal et al. include instant compounds. See entire document, especially pages 13-17 for various substituted pyrimidine compounds. Particularly see page 16, species on line 9-11, 13, 14 and 18. See also examples 7 through 15, pages 33-37, wherein the starting material uracils are also claimed in the instant claims.

This rejection is same as made in the previous office action but now excludes cancelled claim 2. Applicants' traversal to overcome this rejection was not persuasive. Applicants have relied on the "oxo" group of the reference as feature not present in the instant claims. As noted above, instant claims read on the compounds of the reference when both  $R^1$  and  $R^2$  are  $OR^a$  and  $R^a$  is H, thus providing hydroxyl group at 2 and 4-position. This would tautomerize to the oxo group. Thus, instant claims include oxo groups as part of the definition of  $R^1$  and  $R^2$ . Especially see examples 13 and 14 both of which meet the  $R^9$  requirement of instant claims.

Hence, this rejection is proper and is maintained.

Claims 1, 4-8 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Agarwal et al., WO 03/084935.

Agarwal et al. teaches several diaryl pyrimidine compounds useful as cyclooxygenase inhibitors for treating pain and other diseases, which include instant compound generically claimed in the instant claims. See page 9, formula I and note the definition of A, B,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$ . Note with a given A and B choices, when  $R_5$  and  $R_6$  form a double bond, compounds taught by Agarwal et al. include instant compounds. See entire document, especially pages 14-15 for various

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substituted pyrimidine compounds which include several compounds claimed in the instant claims. See page 38-47, examples 5-20 for compounds made.

This rejection is same as made in the previous office action but now excludes cancelled claim 2. Applicants' traversal to overcome this rejection was not persuasive. Applicants have relied on the "oxo" group of the reference as feature not present in the instant claims. As noted above, instant claims read on the compounds of the reference when both  $R^1$  and  $R^2$  are  $OR^a$  and  $R^a$  is H, thus providing hydroxyl group at 2 and 4-position. This would tautomerize to the oxo group. Thus, instant claims include oxo groups as part of the definition of  $R^1$  and  $R^2$ . Especially see examples 13 and 20 both of which meet the  $R^9$  requirement of instant claims.

Hence, this rejection is proper and is maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4-9, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al., WO 2004/009560 for reasons of record. To repeat:

Teachings of Agarwal et al. as discussed in the above 102 rejection is incorporated herein. As noted above, Agarwal et al. teaches several substituted pyrimidine compounds useful as cyclooxygenase inhibitors for treating pain and other diseases, which include instant compound generically claimed in the instant claims.

Agarwal et al. differs from the instant claims in exemplifying only some of the compounds embraced in the genus of compound of formula I shown in page 9.

However, Agarwal et al. teaches equivalency of those compounds taught in pages 16, and 33-37 with those generically recited in pages 9-10.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Agarwal et al and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

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This rejection is same as made in the previous office action but cancelled claims are excluded from this rejection. This rejection is maintained for reasons stated in the above 102 rejection. In summary, Agarwal et al., anticipates instant compounds and also teaches equivalency those compounds exemplified with those generically claimed.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Agarwal et al and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Hence, this rejection is maintained.

Claims 1, 4-9, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al., WO 03/084935 for reasons of record.

Teachings of Agarwal et al. as discussed in the above 102 rejection is incorporated herein. As noted above, Agarwal et al. teaches several substituted pyrimidine compounds useful as cyclooxygenase inhibitors for treating pain and other diseases, which include instant compound generically claimed in the instant claims.

Agarwal et al. differs from the instant claims in exemplifying only some of the compounds embraced in the genus of compound of formula I shown in page 9.

However, Agarwal et al. teaches equivalency of those compounds taught in page 38-47, examples 5-20, with those generically recited in pages 9-10.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Agarwal et al and

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expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

This rejection is same as made in the previous office action but cancelled claims are excluded from this rejection. This rejection is maintained for reasons stated in the above 102 rejection. In summary, Agarwal et al., anticipates instant compounds and also teaches equivalency those compounds exemplified with those generically claimed.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Agarwal et al and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Hence, this rejection is maintained.

#### ***Allowable Subject Matter***

Claims 11, 13-16, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned (571) 273-8300. Any



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inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

  
Venkataraman Balasubramanian

12/29/2006